- CLEVELAND, L. R., S. R. HALL, E. P. SANDERS AND J. COLLIER. 1934. The wood-feeding roach *Cryptocercus*, its Protozoa and the symbiosis between Protozoa and roach. Mem. Amer. Acad. Arts and Sci. 17: 185-342.
- CRAMPTON, G. C. 1932. A phylogenetic study of the head capsule in certain orthopteroid, psocoid, hemipteroid and holometabolous insects. Bull. Brooklyn Entomol. Soc. 27: 19-49.
- DE BEER, G. 1958. Embryos and ancestors. 3rd ed. Clarendon Press, Oxford. 197 pp.
- EMERSON, A. E. 1961. Vestigial characters of termites and processes of regressive evolution. Evolution 15: 115–131.
- HUBER, I. 1974. Taxonomic and ontogenetic studies of cockroaches (Blattaria). Univ. Kansas Sci. Bull. 50: 233–332.
- MACKERRAS, M. J. 1967. A blind cockroach from caves in the Nullarbor Plain (Blattodea: Blattellidae). J. Austral. Entomol. Soc. 6: 39-44.
- MCKITTRICK, F. A. 1964. Evolutionary studies of cockroaches. Cornell Univ. Agric. Expt. Sta. Mem. 389. 197 pp.
- ——. 1965. A contribution to the understanding of cockroach-termite affinities. Ann. Entomol. Soc. Amer. 58: 18–22.
- RAU, P. 1941. Cockroaches: The forerunners of termites (Orthoptera: Blattidae; Isoptera). Entomol. News 52: 256–259.
- RICHARD, G. 1969. Nervous system and sense organs. 1: 161–192 in K. Krishna and F. M. Weesner, eds. Biology of termites. Academic Press, New York.
- TILLYARD, R. G. 1936. Are termites descended from true cockroaches? Nature 137: 655.
  WEESNER, F. M. 1969. External anatomy. 1: 19-48 in K. Krishna and F. M. Weesner, eds. Biology of termites. Academic Press, New York.
- WILSON, E. O. 1971. The insect societies. Belknap Press of Harvard Univ., Cambridge, MA. x + 548 pp.

## BOOK REVIEW

Insect Hormones. V. J. A. Novak. Second English Edition. 600 pp. Chapman & Hall, London; Halsted Press; John Wiley & Sons, New York. \$49.50. 1975.

Rarely does a textbook fulfill a real need, rather than just increase the rapidly growing literature. Novak's book is one of these welcome, rare contributions. It is actually the English translation of his 4th edition which appeared in Czech, and it is in many ways a remarkable treatese. It deals briefly with the history of insect endocrinology, then describes the techniques used in research, including tissue and organ culture. Ecdysone, the juvenile hormone, and the corpora cardiaca hormones are described in the 3rd chapter on 120 pages. This is followed by a discussion of natural and synthetic substances with hormone activity. The role of hormones in morphogenesis and diapause, the neurohormones, protohormones, exohormones, and the substances with allegedly hormonal characteristics occupy 100 pages. A separate chapter is devoted to the effects of insect hormones on noninsects. The book concludes with a stimulating discussion about the theoretical and practical significance of insect hormones. There is an extensive list of references, a good subject index and an author index. This is a remarkable and valuable book, very useful as a reference, amply documented, that can be considered a major and unique addition to the literature on invertebrate endocrinology. Novak's book will remain an important summary of the subject for years to come for all who are working with insect endocrinology.

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